

in 1886. They agree very closely. The difference is that in the case of *Phyllomedusa* the egg-masses are glued between leaves overhanging water, while in the case of *Hyla nebulosa* they are in the sheaths of old banana-leaves; this is of course of secondary importance.

But this agreement, together with my experiments above quoted, makes me doubtful whether, even in the case of *Phyllomedusa*, the egg-masses are suspended from leaves in order to facilitate direct dropping of the larvæ into the water below. Naturally that is the first idea which occurs to the observer. But how, then, to explain the result of the experiment made with *Hyla nebulosa*? Is it not rather the coolness and moisture which the vicinity to water afford that are needed by the egg-masses than actual resort of the larvæ to water? Does not the pronounced dislike of the young *Hyla nebulosa* to remain in that element speak in favour of my supposition?

2. On a Collection of Land-Shells from Sarawak, British North Borneo, Palawan, and other neighbouring Islands. By EDGAR A. SMITH.

[Received January 9, 1895.]

(Plates II.-IV.)

The species mentioned in this report form part of collections received principally from Mr. A. Everett during the last two years. As many as fifty out of the eighty-three enumerated appear to be undescribed, and form a very interesting addition to the known faunæ of their respective localities. The majority were collected by Mr. Everett in various parts of Sarawak and British North Borneo, the others being obtained in some of the small islands off the coast and in the large island of Palawan.

Up to the present time nearly two hundred species of land-shells have been described from Borneo, and forty additional species are characterized in the present paper. They are nearly all from different districts in Sarawak and the northern parts of the island, only a few having been collected by Mr. Carl Bock in the south-east. When the rest of the island is explored it is probable that a very rich fauna will be discovered. The types of all the new species have been presented to the British Museum by Mr. Everett.

In the most recent list of the fauna of Palawan¹ only thirty different species were enumerated. In a subsequent paper by the present writer² six additional species were quoted, and twelve others are now added to the list, making a total of forty-eight species known from the island. I believe that all the eighteen species collected by Mr. Everett were from the southern part of

¹ Rev. A. H. Cooke, Proc. Zool. Soc. 1892, pp. 462-463.

² Ann. Mag. Nat. Hist. 1893, vol. xi. pp. 347-353.

the island, and those quoted by Dohrn¹ from the central portion near Puerto Princesa. There still remain considerable unexplored regions, so that the discovery of many new and interesting forms will doubtless be made by future collectors.

To explain at a glance the distribution of the various species which constitute the Palawan fauna, the following tabular list is appended. Only those species marked with an asterisk have been seen by the writer from Palawan, the others being quoted on the authority of Dohrn. A study of the new forms discovered by Mr. Everett does not appear to affect Mr. Cooke's comment upon the relationship of this island-fauna, namely, that "Palawan affords a link between the Philippines and the Indo-Malay islands, without being very markedly allied with either group."

Names of the Species.	Borneo.	Balabac or Banguey Is.	Palawan.	Philippines.	Other Localities.
* <i>Hemiplecta densa</i> , <i>Ad. & Rve.</i> ...	*	...	*	* ?	Labuan.
* " <i>egeria</i> , <i>Smith</i>	...	...	*		
<i>Hemitrichia plateni</i> , <i>Dohrn</i>	...	...	*		
<i>Euplecta cebuensis</i> , <i>Muldff.</i>	...	...	*	*	
" <i>boholensis</i> , <i>Pfr.</i>	...	...	*	*	
* <i>Macrochlamys pseustes</i> , <i>Smith</i> ...	...	...	*		
<i>Lamprocystis goniogyra</i> , <i>Muldff.</i> ..	...	...	*	*	
" <i>succinea</i> , <i>Pfr.</i>	...	...	*	*	
* " <i>myops</i> , <i>Dohrn & Semp.</i>	...	*	*	*	Sulu Is.
* " <i>St. Johni</i> , <i>G.-Aust.</i> ..	*	...	*		
* <i>Sitala accepta</i> , <i>Smith</i>	*	...	*		
* " <i>infantilis</i> , <i>Smith</i>	...	...	*		
* " <i>baritensis</i> , <i>Smith</i>	*	...	*		
<i>Trochonanina conicoides</i> , <i>Mtclfc.</i> ..	*	...	*		
* " <i>paraguensis</i> , <i>Smith</i> ...	...	*	*		
<i>Trochomorpha loocensis</i> , <i>Hid.</i> ...	...	...	*	*	
* " <i>metcalfei</i> , <i>Pfr.</i> ...	*	...	*	*	Sulu Is.
" <i>splendens</i> , <i>Semp.</i> ..	...	...	*	*	
* <i>Helix</i> (<i>Hadra</i>) <i>trailli</i> , <i>Pfr.</i>	...	...	*		
* " (") <i>monochroa</i> , <i>Sow.</i> ...	...	*	*	...	Busuanga.
* " (<i>Chloritis</i>) <i>euphrosyne</i> , <i>Smith</i>	...	...	*		
" (<i>Eulotella</i>) <i>inquieta</i> , <i>Dohrn.</i> ..	...	...	*		
" (") <i>fodiens</i> , <i>Pfr.</i> ...	...	...	*	*	
* <i>Amphidromus entobaptus</i> , <i>Dohrn.</i> ..	...	*	*		
* <i>Cochlostyla satyrus</i> , <i>Brod.</i>	...	*	*	...	Busuanga.
<i>Cyclophorus acutimarginatus</i> , <i>Sow.</i>	...	...	*	*	
" <i>plateni</i> , <i>Dohrn</i>	...	...	*		
" <i>quadrasi</i> , <i>Hid.</i>	...	...	*		
" <i>woodianus</i> , <i>Lea</i> ...	...	...	*	*	
<i>Leptopoma acuminatum</i> , <i>Sow.</i> ...	...	...	*	*	
" <i>atricapillum</i> , <i>Sow.</i> ...	...	...	*	*	
" <i>distinguendum</i> , <i>Dohrn</i>	...	...	*	*	

¹ *Nachrichtsbl. deutsch. mal. Gesell.* 1889, pp. 53-63.

Names of the Species.	Borneo.	Balabac or Banguey Is.	Palawan.	Philippines.	Other Localities.
<i>Leptopoma insigne</i> , Sow.	...	...	*	*	Molucca and Sulu Is., &c.
„ <i>luteostoma</i> , Sow.	...	...	*	*	
„ <i>superbum</i> , Dohrn	...	...	*	*	
* „ <i>vitreum</i> , Lesson	*	*	*	*	
* „ <i>palawanensis</i> , Smith.	...	...	*	*	
* <i>Lagochilus simile</i> , Smith	...	*	*	...	China and Cochin China.
* <i>Cyclotus euzonus</i> , Dohrn	...	...	*	...	
„ <i>sordidus</i> , Pfr.	...	...	*	...	
* „ <i>palawanicus</i> , Smith ...	...	...	*	*	
* „ <i>pusillus</i> , Sow.	...	...	*	*	
* <i>Opisthoporus quadrasi</i> , Hid.	...	*	*	...	Natuna Is. Sulu Is., Mengalun, Usukan, Mantangak Is. Labuan, Sulu Is.
* <i>Pupina hosei</i> , G.-Aust.	*	*	*	...	
* <i>Diplommatina concolor</i> , Quad. & Mldff.	...	...	*	*	
* „ <i>rubicunda</i> , Mrtns.	*	...	*	...	
* <i>Helicina usukanensis</i> , G.-Aust. ...	...	*	*	...	
* „ <i>martensi</i> , Issel	*	...	*	...	

BALABAC.

Including the new species and others described or mentioned in the following pages, the total number of Land-Shells occurring in Balabac amounts to twenty-one, as follows :—

Names of the Species.	Other Localities.
<i>Lamprocystis goniogyra</i> , Mldff.	Philippines.
„ <i>inyops</i> , Dohrn & Semp.	Banguey, Palawan, Philippines, Sulu.
„ <i>succinea</i> , Pfr.	Philippines.
„ <i>balabacensis</i> , Smith.	
<i>Trochonanina labuanensis</i> , Pfr.	Borneo.
„ <i>paraguensis</i> , Smith.	
<i>Helix</i> (Hadra) <i>monochroa</i> , Sowerby ...	Palawan, Busuanga.
<i>Corasia zamboangæ</i> , Hom. & Jac.	
<i>Cochlostyla satyrus</i> , Brod.	Banguey, Palawan, Busuanga.
<i>Amphidromus quadrasi</i> , Hid.	Candaramanes or Caramandanes Is.
„ <i>entobaptus</i> , Dohrn	Palawan.
<i>Cyclophorus triliratus</i> , Pfr.	Borneo.
<i>Opisthoporus quadrasi</i> , Crosse.	Palawan.
<i>Leptopoma insigne</i> , Sow.	Mindoro.
„ <i>maculatum</i> , Lea	Luzon.
„ <i>vitreum</i> , Lesson	Borneo, Palawan, Philippines, Molucca, and Sulu Is., &c.
<i>Lagochilus similis</i> , Smith	Palawan.
„ <i>balabacensis</i> , Smith.	
<i>Diplommatina balabacensis</i> , Smith.	
„ <i>recta</i> , Smith	Borneo.
<i>Pupina hosei</i> , G.-Aust.	Borneo, Palawan.

It will be seen from these tables that eight of the twenty-one species also occur in Palawan to the north, whereas only five extend into Borneo, and two of the five are likewise found in Palawan.

The relationship of the fauna may, on the whole, be considered to preponderate in favour of that of the Philippines rather than of that of Borneo.

The genera *Diplommatina* and *Pupina* are now quoted for the first time from Balabac. Both occur in Borneo and Palawan.

BANGUEY ISLAND.

Cochlostyla satyrus, Broderip, and *Hemiplecta obliquata*, Reeve, are, I believe, the only species yet recorded from this little island, situated between Borneo and the island of Balabac.

Examples of the following eight species were collected by Mr. Everett:—

1. *Everettia bangueyensis*, Smith. Peculiar.
2. „ *subconsul*, Smith. Also N. Borneo and Mengalun I.
3. *Trochonanina alexis*, Smith. Peculiar.
4. *Helix* (*Chloritis*) *tomentosa*, var., Pfr. Also Borneo and Karamon I.
5. *Lagochilus bangueyensis*, Smith. Peculiar.
6. *Diplommatina baritensis*, Smith. Also Borneo.
7. *Georissa bangueyensis*, Smith. Peculiar.
8. *Helicina usukanensis*, G.-Aust. Mengalun, Usukan, Mantangak, Palawan, Sibutu, and Bilaton Is.

Enumeration and Description of the Species.

1. XESTA THEMIS. (Plate II. figs. 1, 2.)

Testa anguste perforata, depresso conoidea, suborbicularis, fusca, subpellucida, supra laud nitida, inferne nitens, ad peripheriam angulata, lineis incrementi arcuatis sculpti; spira brevis, ad apicem obtusa; anfractus 5-6, leviter convexi, ultimus infra angulum tenuissime spiraliter striatus; apertura obliqua, angulato-lunata; peristoma tenue, margine columellari ad insertionem paulo incrassato, brevissime expanso et reflexo.

Diam. maj. 19 millim., *min.* 17, *alt.* 11.

Hab. Upper Padas, British North Borneo.

A narrowly perforated species, of a rich brown colour, a trifle paler around the perforation, with a dull upper surface, and very glossy below. It may possibly attain larger dimensions than those given above.

2. XESTA PADASENSIS. (Plate II. fig. 3.)

Testa angustissime perforata, subglobose conica, tenuissima, pellucida, pallide virenti-cornea, polita; spira breviter conica, ad apicem obtusa; anfractus 5, convexiusculi, infra suturam anguste et concave marginati, ultimus subglobosus, in medio

rotundatus, haud descendens; apertura oblique lunata; peristoma tenue, margine columellari superne breviter et anguste reflexo.

Diam. maj. 18 millim., min. 16, alt. 12.

Hab. Upper Padas, British North Borneo.

A transparent, glossy, narrowly perforated shell, without colour-markings, and with only very faint lines of growth, and here and there very feeble indications of spiral striation. A dark line, occasioned by stains from the animal and which can be washed away, frequently accompanies the suture.

3. *XESTA THISBE.* (Plate II. fig. 4.)

Testa subglobosa, conoidea, perforata, ad peripheriam subangulata, rufo-cornea, zona angusta pallida, supra rufo-fusco marginata circa medium cincta, polita; spira convexa conica, ul apicem mediocriter acuta; anfractus 6, convexiusculi, striis incrementi tenuissimis sculpti, ultimus supra et infra medium subaequaliter convexus, ad peripheriam obtuse angulatus; apertura obliqua, irregulariter lunata; peristoma tenuissimum, margine columellari supra umbilicum breviter dilatato, reflexo, purpureo.

Diam. maj. 26 millim., min. 23, alt. 18.

Hab. Mount Rabong, in the south-western part of Sarawak.

Differing from *X. de crespignii* in colour, the more angular body-whorl, and more slowly increasing spire. The periphery is marked by a pale yellow narrow zone, and the rich brown band, which is contiguous with it above, revolves up the spire a short distance. The surface is highly glossy, and, in addition to the delicate lines of growth, faint indications of very fine spiral striation are here and there traceable. In certain positions the incremental striae beneath the suture appear more distinct than upon the rest of the surface.

4. *HEMIPLECTA Densa* (Adams & Reeve), var. *EVERETTI.* (Plate II. fig. 8.)

In the 'Annals,' 1893, vol. xi. pp. 349, 350, I mentioned the occurrence at Palawan of a very acutely keeled variety of this species. It most nearly resembles that form which is recognized as var. *schumacheriana*. It is, however, a trifle larger and flatter above, the peripheral keel in consequence appearing somewhat more acute. Additional specimens brought by Mr. Everett appear to make it advisable to designate it with a varietal name. I would therefore suggest that it be known as var. *everetti*. The largest example from the south-eastern part of the island is 58 millim. in diameter.

5. *HEMIPLECTA PRÆCULTA.* (Plate II. fig. 7.)

Testa anguste umbilicata, depresso conica, ad peripheriam acute carinata, mediocriter tenuis, subpellucida, cornea, epidermide pallide olivacea induta, infra suturam et peripheriam pallide vel saturate rufo-nigro marginata; spira breviter conica; anfractus 5-6, celeriter accrescentes, superne vix convexiusculi, inferne

leviter concavi, striis obliquis irregularibus tenuibus lineisque incrementi oblique curvatis sculpti, ultimus magnus, supra et infra carinam compressus, infra mediocriter convexus, oblique, concentrice, tenuiter sed corrugato-striatus; apertura obliqua, angulato-lunata; peristoma mediocriter validum, intus anguste incrassatum, ad insertionem supra umbilicum breviter expansum, fuscescens.

Diam. maj. 48 millim., min. 39, alt. 25.

Hab. Meri, Sarawak (C. Hose).

A single specimen was collected at the above locality by Mr. Hose, but a finer example, which may be regarded as the type, was presented to the Museum a year or two ago by Dr. H. Woodward. This fine species does not resemble any of the other known Bornean forms, and is remarkable for the conical spire, the acutely angled body-whorl, and the rapid increase of the volutions. The fine oblique wrinkly striation is also a characteristic feature. It is placed temporarily in *Hemiplecta*, for when the soft parts are known it may prove to be a dextral form of *Dyakia*.

6. *HEMIPLECTA EGERIA*. (Plate II. figs. 5, 6.)

Testa depressa, orbicularis, carinata, anguste umbilicata, fusca, concolor, supra haud nitida, infra nitens; spira depresso conoidalis, ad apicem obtusa; anfractus 6, subplani, lente regulariter crescentes, lineis incrementi tenuibus striati, et supra minutissime corrugati vel subgranulati, ultimus subacute carinatus, infra carinam convexiusculus, nitidissimus, lineis spiralibus microscopicis sculptus; apertura angulato-lunata, obliqua; peristoma tenue, margine columellari obliquissimo, subarcuato, ad insertionem supra umbilicum breviter dilatato et reflexo, sublivido.

Diam. maj. 35 millim., min. 31, alt. 16.

Hab. South-west Palawan.

The upper surface of this species is of a dull appearance, resulting from the minute granulation or wrinkling. On the contrary, the underside is very highly polished. It differs from *H. densa*, var. *everetti*, not only in sculpture, but in the less rapid increase of the whorls, the flatter spire, and narrower umbilicus. The excessively fine concentric striae upon the lower surface are particularly noticeable within the aperture, where the surface of the whorl is dulled by a filmy deposit. It may be a dextral form of *Dyakia*.

7. *HEMIPLECTA RABONGENSIS*. (Plate II. fig. 9.)

Testa depresso conica, anguste perforata, tenuis, cornea, apicem versus fuscescens, supra haud nitida, infra sericata, ad peripheriam acute carinata; spira breviter conica, ad apicem obtusa; anfractus 7, vix convexiusculi, lente accrescentes, undique minute granulati, lineisque incrementi obliquis sculpti, supra suturam anguste marginati, ultimus infra medium convexiusculus, minutissime corrugatus vel subgranulatus; apertura

angulato-lunata, obliqua; peristoma tenuissimum, margine columellari supra umbilicum breviter reflexo.

Diam. maj. 29 millim., min. 26.5, alt. 16.

Hab. Mount Rabong in the south-western part of Sarawak.

This species, which may possibly be a dextral *Dyakia*, is quite distinct from *H. densa* or *H. egeria*. It has a more raised spire than the latter, is more strongly sculptured both above and beneath, and is less glossy upon the under surface. *H. densa* is more widely umbilicated, is differently sculptured, and has much more rapidly enlarging whorls, which also, in shells of the same dimensions, are fewer in number.

8. DYAKIA LINDSTEDTI (Pfeiffer). (Plate II. fig. 10.)

Helix lindstedti, Pfr. Proc. Zool. Soc. 1856, p. 387; Mon. Hel. vol. iv. p. 31.

Hab. Malacca (Pfr.); Penrisen Mountain, Sarawak, up to 3500 feet (*A. Everett*).

Two varieties were collected at the above locality by Mr. Everett. Both are represented by dextral and sinistral specimens, the latter appearing to be the more common form. The rate of growth in all of these specimens is imperceptibly slower than in the type of the species, so that the last whorl is very slightly narrower. One of the varieties is of the same uniform pale greenish horn colour as the type; the other (var. *castanea*) of a rich brown tint, excepting the keel and suture, which are yellowish. This may be *Nanina janus* (Chemn.), as identified by Dr. E. von Martens (Preuss. Exped. Ost-Asien, Zool. vol. ii. p. 226, pl. xi. fig. 4). The sculpture is precisely similar in all.

This species approaches very closely to *D. regalis* in form and sculpture, but it does not exhibit the plications at the upper part of the spire which are characteristic of that species. *D. regalis*, however, which is variable in colour, is usually rather smaller; the basal portion of the latter around the umbilicus is of an opaque creamy tint. A somewhat similar pale zone exists in the type of *D. lindstedti* and is also faintly indicated in some of the Penrisen shells. Probably the two species pass imperceptibly one into the other.

The shell figured is the type specimen described by Pfeiffer from Malacca.

9. DYAKIA BUSANENSIS, Godwin-Austen, var.

Dyakia busanensis, G.-A. Proc. Zool. Soc. 1891, p. 31, pl. ii. fig. 1.

Hab. Batang Lupar district, Sarawak.

The specimens from this locality differ from the typical form in being of a uniform horny brown colour (var. *concolor*). The spire may be a trifle less conical, but as regards the number of whorls and the character of the sculpture they are practically identical. The whorls are a trifle convex and distinctly impressed above the

suture. Although not mentioned by Godwin-Austen, there are microscopic spiral or concentric striæ on the base, and, near the keel, they are quite evident, even under an ordinary lens. *Nanina sarawakana*, Dohrn, appears to be very near this species.

10. *DYAKIA SUBDEBILIS*. (Plate II. fig. 11.)

Testa sinistrorsa, tenuis, anguste perforata, pallide fuscescens, ad carinam medianam et suturam linea pallida cincta; spira depresso conica, ad apicem obtusa; anfractus 6, lente accrescentes, planiusculi, supra suturam impressi, lineis incrementi oblique arcuatis sculpti, minute granulati, granulis minutissimis in seriebus spiralibus plus minus regularibus dispositis; anfr. ultimus ad peripheriam acutissime carinatus (carina utrinque compressa), infra convexiusculus, nitidior quam supra, similiter insculptus; apertura angusta, obliqua; peristoma tenuissimum, margine columellari ad insertionem paulum reflexo.

Diam. maj. 23 millim., *min.* 20, *alt.* 11.

Hab. Sarawak (*C. Hose*).

The precise locality of the single specimen presented to the British Museum by Mr. Hose is unknown, but it may possibly be Baram. With the exception of *D. moluensis* of Godwin-Austen, this species is smoother than any of the Bornean forms of *Dyakia*, and on this account is not likely to be mistaken for the young of some of the larger species. It is coloured like the "*first variety*" of the preceding species, but is a trifle paler; it is, however, differently sculptured and the whorls enlarge less rapidly.

TROCHONANINA.

The present collection contains three forms of this genus which cannot satisfactorily be referred to any of the known species from Palawan, Balabac, Borneo, Labuan, Natuna, Sulu, and Philippine Islands. They agree with *T. paraguensis*, Smith, and *T. bongaoensis*, Smith, in the thickened sinuous lower margin or lip of the aperture, and the differences consist in size, colour, and sculpture. Another species, the smallest of the whole series having the thickened basal lip, was referred by the writer to *T. conicoides* under the varietal name of *parva*. Having re-examined these specimens, together with the fresh material collected by Mr. Everett, I am now of opinion that it will be more philosophic and satisfactory to designate, by separate names, these forms, which, although bearing such a strong general resemblance to one another, are still recognizable by certain, although perhaps only slight, differences. This is one of those cases which occasionally present themselves, in which it is so difficult to come to a decision. Take the two extreme forms of the series and there is no difficulty in at once regarding them as distinct species, and it would be absurd not to do so, but when the various intermediate forms present themselves we are puzzled how to proceed.

11. *TROCHONANINA PARAGUENSIS*, Smith.

Trochonanina paraguensis, Smith, Ann. Mag. Nat. Hist. 1893, vol. xi. p. 349, pl. xviii. figs. 7-9.

Hab. Balabac and Palawan.

The specimens from Balabac offer no variation from those occurring at Palawan. A small variety, 13 millim. in diameter, occurring at the latter island, has the same number of whorls, but the spire a little more conical than the type.

12. *TROCHONANINA ALEXIS*. (Plate II. figs. 13, 14.)

Testa *T. paraguensis affinis, sed plerumque paulo major, fusca, labro incrassato roseo, unfractibus 8, supra per omnes partes spiraliter tenuiter striatis, ultimo angustiore, infra vix concentricè striato.*

Diam. maj. $21\frac{1}{2}$ millim., *min.* 20, *alt.* 8.

Diam. maj. $18\frac{1}{2}$ millim., *min.* 17, *alt.* $7\frac{1}{2}$.

Hab. Banguay Island.

This species is of a uniform brown tint above and below, and the thickened lip is pale rose. The spiral sculpture on the upper surface extends over the whorls and is finer than in *T. paraguensis*. The shell also is a little more compressed, and the body-whorl is narrower, and with only feeble traces of spiral striæ beneath.

13. *TROCHONANINA HERACLEA*. (Plate II. fig. 12.)

Testa *T. bongaoensis affinis, sed spira magis conica, anfractibus lentius accrescentibus, ultimo latiore, lineis spiralibus et incrementi validioribus.*

Diam. 17 millim., *alt.* 8.

Hab. Mount Rabong, West Sarawak.

A trifle larger than *T. bongaoensis* (Ann. & Mag. N. H. 1894, vol. xiii. p. 52, pl. iv. figs. 2-2^b), but of the same brown colour and general appearance. The lip is rosy white and tortuous as in *T. bongaoensis*, but the spire is not convexly conoidal, but with rectilinear sides, the increase and width of the whorls are different, and the spiral sculpture is stronger.

14. *TROCHONANINA KINA-BALUENSIS*. (Plate II. figs. 15, 16.)

Testa *imperforata, depressa, acute carinata, rufo-castanea, supra fortiter spiraliter striata, infra lineis incrementi modo striata; spira conica, parum elata; anfractus 7, supremi pallidi, convexiusculi, ceteri planiusculi, supra suturam albo-marginatam leviter impressi, incrementi lineis et striis spiralibus sculpti, ultimus acutissime carinatus, infra convexiusculus, prope carinam impressus; apertura angulatim lunaris, margine basali conspicue incrassato et leviter reflexo, purpureo-rufo, ad insertionem pallido, paulo dilatato, margine superiore tenui.*

Diam. maj. 23.5 millim., *min.* 21, *alt.* 10.

Hab. Kina Balu, 3000-4000 feet (*A. Everett*).

Var. *PALLIDA*. *Testa typo minor, dilute fusco-cornea. Diam. maj. 16 millim., min. 14, alt. 6.*

The variety, which was collected at the same locality as the type, consists of the same number of whorls, is similarly sculptured, and has a similar aperture and peristome. With the exception of its small size and paler colour, it agrees perfectly with the typical form. The colour of the latter is a rich purplish red-chestnut above and below. The extreme edge of the keel and the suture are pale, and above and beneath the keel and above the suture a narrow dark spiral line is observable. It differs from *T. alexis* in colour, the greater width of the whorls, and the much stronger spiral sculpture.

15. *TROCHONANINA WHITEHEADI*. (Plate II. figs. 17, 18.)

Testa parva, T. paraguensi similis, sed minor, carina acutiore, labio magis sinuoso.

Diam. maj. 11½ millim., alt. 5.

Hab. N. Borneo (J. Whitehead).

This is the smallest of the known Bornean forms. It has all the general characters of *T. paraguensis*, but may be separated on account of certain slight differences, such as the sharper more compressed keel, somewhat paler colour, and more sinuous basal lip.

EVERETTIA, Godwin-Austen.

Nearly all of the species of this genus are exceedingly difficult to distinguish by their shells, and it is quite impossible to determine them from the published descriptions or even the figures. The slightest inaccuracy in outline gives to a figure quite a different appearance from the specimen delineated. It is only by comparison of the type examples that we can determine the species with any degree of certainty, and even under these favourable circumstances it is a task of no mean difficulty. With the exception of *E. hyalina* (Martens), the types of all the known species from Borneo are in the British Museum, and consequently the determination of a number of forms from that island, acquired within the last two or three years, is to a great extent facilitated. *E. bocki*, quoted by Godwin-Austen¹ as of Issel, is purely imaginary, and is not described at the reference given.

16. *EVERETTIA SUBIMPERFORATA*. (Plate III. fig. 1.)

Testa E. consuli subsimilis, sed minus depressa, solidiuscula, vix perforata, nitidissima, supra et infra tenuissime spiraliter striata, lineisque incrementi obliquis infra suturam confertim plicatis sculpta; anfractus 6½, convexiusculi, lente et regulariter accrescentes, ultimus rotundatus, infra in medio impressus; apertura oblique lunata, intus opalescens; peristoma tenuissimum, margine columellari leviter incrassato, ad insertionem breviter reflexo umbilicum fere tegente.

Diam. maj. 26 millim., min. 23, alt. 17.

¹ P. Z. S. 1891, p. 36.

Hab. Poch Mountain, Sarawak.

Less depressed and more solid than *E. consul* and with scarcely any umbilical perforation. The coloration is similar in both species. The figures of *E. consul* (Pfeiffer, Novit. Conch. vol. iii. pl. lxxiv. figs. 11, 12) give an admirable idea of the adult form of the species. The type originally described was not quite full-grown and consists of half a whorl less than the shell delineated.

17. *EVERETTIA CONSUL* (Pfeiffer).

Helix consul, Pfr. Novitates Conch. vol. iii. p. 306, pl. lxxiv. figs. 11, 12 (not 13, 14, as quoted by Martens, Godwin-Austen, and Issel); Reeve, Con. Icon. fig. 1395.

Hab. Sarawak (the type); Labuan (*Pfr. l. c.*); Sarawak (*A. Everett*).

The large specimen figured by Pfeiffer I regard as the adult form, and not as a variety. With the exception of having completed an additional half-whorl, and thus added considerably to its size, I can discover no difference between it and the type shell.

18. *EVERETTIA SUBCONSUL* (Smith).

Nanina subconsul, Smith, Ann. Mag. Nat. Hist. 1887, vol. xx. p. 132.

Macrochlamys subconsul, Smith, Ann. Soc. Roy. Malac. Belgique, vol. xxii. p. 217, pl. ix. figs. 4-6.

Hab. North Borneo (type): Banguay and Mengalun Islands, also Kina Balu (*Everett*).

The specimens obtained at Kina Balu exhibit a somewhat more distinct angulation upon the body-whorl than the type. Two examples from Mengalun Island are much more thickened than the type, probably being older shells, and one of them is of a rich brown colour, the other of an olivaceous yellow tint.

19. *EVERETTIA JUCUNDA* (Pfeiffer).

Helix jucunda, Pfr. Novitat. Conch. vol. iii. p. 307, pl. lxxiv. figs. 13, 14 (not figs. 11, 12, as quoted by Martens, Issel, and Godwin-Austen).

Hab. Labuan (type); Labuan and Tiga Island (*Everett*), Baram in Sarawak (*C. Hose*).

The figure given by Martens (Preuss. Exped. Ost-Asien, Zool. Bd. ii. pl. xii. fig. 7) appears to represent this species, although on close examination it is seen to consist of about one whorl less than the type; but perfect accuracy in a matter of this kind is not to be expected from the average artist.

20. *EVERETTIA PLANIOR*. (Plate III. fig. 2.)

Testa E. consuli similis, sed minor, spira minus elata, anfractibus minus numerosis, ultimo latiore.

Diam. maj. 19.5 millim., *min.* 17, *alt.* 10.

Hab. Niah, Sarawak.

The above dimensions are those of the largest of the eight

specimens in the Museum. On comparing them with examples of *E. consul* of the same size, it is seen that they consist of half a whorl less, which gives quite a different look to the spire. This is distinctly less elevated, and the body-whorl, seen from above, appears to be rather broader. The colour is about the same in both species and the sculpture very similar, but the spiral striæ upon the base of the present species are a trifle more distinct than in *E. consul*.

21. *EVERETTIA AGLAJA* (Pfeiffer).

Helix aglaja, Pfeiffer, Reeve, Conch. Icon. f. 1396.

Nanina (*Macrochlamys*) *aglaja*, Martens, Preuss. Exp. Ost-Asien, Zool. vol. ii. p. 242, pl. 12. fig. 13.

Hab. Sarawak (type); Barit Mountain (*Everett*).

Neither Reeve's nor Martens's figure gives a good idea of the type of this species. The subplications at the suture are the principal distinguishing feature.

22. *EVERETTIA BARAMENSIS*. (Plate III. fig. 3.)

Testa *E. aglajæ similis, sed virescens, supra minus polita, lineis incrementi ad suturam haud plicatulis, anfractibus minus numerosis.*

Diam. maj. 13 millim., *min.* 11, *alt.* 6.5.

Hab. Dulit Mountain and Apoh, Baram; varieties from Barit Mountain.

The greenish tint of this species serves to separate it from the other Bornean forms of this genus. It is of the same size, presuming it to be full-grown, as *E. aglaja*, but is quite distinct on account of the difference of sculpture and the number of whorls. There are only five volutions in the present species, whereas in *E. aglaja* there are $5\frac{1}{2}$ –6. The upper surface has a somewhat dull silky appearance and is devoid of the conspicuous plications below the suture which are so characteristic of *E. aglaja*.

The specimens from Barit Mountain differ from the type and belong to two varieties—the one differing only in having more conspicuous lines of growth upon the upper surface, the other in colour: instead of the greenish tint of the type, they are of a brown colour excepting a yellowish central portion of the base. This form has sculpture equally fine as the type.

23. *EVERETTIA BANGUEYENSIS*. (Plate III. fig. 4.)

Testa parva, depressa, orbicularis, anguste perforata, tenuis, fusco-cornea, subpellucida, nitens; spira parum elata; anfractus $5\frac{1}{2}$, convexi, lente accrescentes, sutura profunda sejuncti, ultimus ad peripheriam rotundatus, infra paulo pallidior; apertura oblique lunata, angusta; perist. tenue, margine columellari superne anguste reflexo.

Diam. maj. 9 millim., *min.* 8, *alt.* $4\frac{3}{4}$.

Hab. Banguay Island, north of Borneo.

This species somewhat resembles *E. aglaja*, but is somewhat smaller, has a flatter spire, a deeper suture, and, for its size, more numerous whorls.

24. *EVERETTIA THALIA*. (Plate III. fig. 5.)

Testa depresso conoidea, suborbicularis, sordide pellucida, epidermide olivacea induta, imperforata; spira brevis, convexa conoidea, ad apicem obtusa; anfractus 6-7, convexiusculi, lente accrescentes, superne fortissime arcuatim et oblique striati, haud nitidi, ultimus ad peripheriam subangulatus (angulo aperturam versus sensim evanescente), infra convexiusculus, aliquanto levigatus, lineis incrementi tenuibus striatus, in medio paulo impressus; apertura oblique lunata; peristoma tenue, margine columellari superne leviter incrassato, reflexo, appresso.

Diam. maj. 19 millim., *min.* 17½, *alt.* 13.

Hab. Mount Rabong.

This species is at once distinguishable by the strong curved oblique raised lines of growth upon the upper surface, and the imperforate impressed base which is somewhat glossy, whereas the spire is more or less dull. *Aglaja*, the name of one of the three Graces and daughter of Jupiter and Antonoë, having been associated by Pfeiffer with a species of this genus, it seemed suitable to make use of her sister's name *Thalia* in connection with an allied form.

25. *EVERETTIA CUTTERI* (H. Adams).

Macrochlamys cutteri, H. Ad. Proc. Zool. Soc. 1870, p. 794, pl. xlviii. fig. 21.

Hab. Busau (H. Adams & Everett).

The locality Busau is printed erroneously Busan by H. Adams and Godwin-Austen, P. Z. S. 1889, pp. 334-355, 1891, pp. 37-46, and therefore for *busanensis*, the term applied to several species, *busauensis* should be substituted.

26. *LAMPROCYSTIS MYOPS* (Dohrn & Semper).

Lam. chlororhaphæ, Smith, Ann. & Mag. 1893, vol. xi. p. 348, pl. xviii. figs. 4-6.

Hab. Tiga Island, near Labuan.

This species appears to be widely distributed, having been recorded from Mindanao, Sulu Islands, Palawan, and Balabac. The specimens described from Palawan as *Lamprocystis chlororhaphæ* undoubtedly belong to this species.

27. *LAMPROCYSTIS BALABACENSIS*. (Plate III. fig. 6.)

Testa depressa, orbicularis, anguste perforata, polita, cornea, subpellucida; spira vix prominula, ad apicem obtusa; anfractus 4½, convexiusculi, lente accrescentes, læves, infra suturam tenuiter plicato-striati, ultimus ad peripheriam rotundatus; apertura oblique lunata; peristoma tenue, margine columellari superne breviter dilatato, reflexo, et peculiariter sinuato, porca parva in umbilico instructo.

Diam. 7 millim., *alt.* 4.

Hab. Balabac.

The perforation is very small and partly hidden by the reflexed columellar margin, which is peculiarly produced and sinuated at this part. It is more depressed than *L. myops*, the whorls are more convex and the suture deeper.

28. *LAMPROCYSTIS ST. JOHNI* (Godwin-Austen).

Microcystina st. johni, Godwin-Austen, Proc. Zool. Soc. 1891, p. 38, pl. iv. figs. 3, 3a.

Hab. Busau Hills and Palawan.

The specimens from Palawan are a little darker in tint than the type from Busau, but the intensity of the colour varies considerably according to the ground-colour upon which the specimens rest.

29. *SITALA RUMBANGENSIS*. (Plate III. fig. 7.)

Testa vix perforata, conica, fusco-cornea, nitida, ad peripheriam filo-carinata, lineis incrementi levibus striata, inferne striis concentricis tenuissimis sculpta; spira obtuse conoidalis; anfractus 6, convexi, lentea crescentes, sutura carina saturatiore marginata sejuncti; apertura parva, lunata; peristoma tenue, marginem columellari fortiter incrassato, leviter reflexo.

Diam. maj. 4·5 millim., *min.* 4, *alt.* 4·5.

Hab. Rumbang, Sarawak, and Mount Rabong.

Var. Testa typo paulo angustior, anfractibus $6\frac{1}{2}$ striisque basalibus minus conspicuis. *Diam. maj.* 3·3 millim., *min.* 3·2, *alt.* 4.

Hab. Mulu Mountain, N. Borneo.

The superior height in proportion to the diameter gives the variety a more conoidal appearance than the type. In all other respects they are practically similar.

It is distinguishable from *S. angulata*, Issel, by the absence of spiral striæ above, its more glossy surface, the more distinct thread-like keel, and the more thickened columella.

30. *SITALA DEMISSA*. (Plate III. fig. 8.)

Testa tenuissima, pellucida, cornea, angustissime perforata, turbinata; anfractus 5, convexiusculi, spiraliter minute striati, lineisque incrementi perobliquis tenuissimis sculpti, ultimus paulo inflatus, ad peripheriam carina filiformi cinctus, supra et infra carinam aequaliter convexus; apertura oblique lunata; peristoma tenue; columella ad insertionem paulum incrassata et reflexa.

Diam. maj. 3·5 millim., *alt.* 3·5.

Hab. Mulu Mountain, N. Borneo; and Busau, West Sarawak.

The more inflated body-whorl distinguishes this from the other Bornean species of *Sitala*. Both the upper and lower surfaces are finely spirally striated, the striæ on the base having a minutely wavy appearance.

31. *SITALA BUSAUENSIS*. (Plate III. fig. 9.)

Testa anguste perforata, conica, ad peripheriam carinata, dilute fusco-cornea; anfractus 6, convexiusculi, liris obliquis tenuissimis confertis arcuatis, sutura carinata sejuncti, ultimus infra carinam paulum convexus, nitidior, concentrice tenuiter striatus; apertura parva; columella rectiuscula, leviter incrassata et reflexa.

Diam. maj. 3.5 millim., alt. 3.7.

Hab. Busau, Sarawak.

The distinguishing features of this species are the well-marked fine oblique lirations upon the upper surface and the concentric striæ of the base. In form it is very like *S. angulata*, Issel.

32. *SITALA CARA*. (Plate III. fig. 10.)

Testa trochoidea, anguste perforata, tenuis, cornea, subpellucida, carinata; spira conica, ad apicem obtusiuscula; anfractus 6, convexi, lineis incrementi tenuissimis obliquis sculpti, lente accrescentes, ultimus infra carinam leviter convexus, striis concentricis minutis ornatus; apertura parva, lunata, vix obliqua; peristoma tenue, margine columellari declive paulo reflexo, haud incrassato.

Diam. maj. 3.3 millim., alt. 3.2.

Hab. Gomanton, N.E. Borneo.

Very like *S. angulata*, Issel, but rather higher in proportion to the width, and without spiral striæ upon the spire.

33. *SITALA DULCIS*. (Plate III. fig. 11.)

Testa depresso turbinata, minute perforata, haud carinata, fusco-cornea, sericata, striis incrementi obliquis aliisque spiralibus confertis microscopice cancellata; spira brevis, convexa, obtusa; anfractus $4\frac{1}{2}$, perconvexi, sutura profunda sejuncti, ultimus ad peripheriam acute rotundatus vel vix subangulatus, inferne concentrice striatus; apertura lunata, vix obliqua; peristoma tenue, margine columellari arcuato, superne dilatato et reflexo.

Diam. maj. 2.5 millim., alt. vix 2.

Hab. Gomanton, N.E. Borneo.

In comparison with the other Bornean *Sitalæ*, the present species is less conical. It is allied to *S. orchis*, Godwin-Austen, but much more finely striated.

34. *SITALA ACCEPTA*. (Plate III. fig. 12.)

Testa angustissime perforata, rotunde conica, ad peripheriam carinata, cornea, subpellucida, lineis spiralibus microscopice incrementique tenuissimis decussata; spira convexe conoidea, superne obtusa; anfractus 5-5 $\frac{1}{2}$, convexi, lente accrescentes, sutura carinata profunda discreti, ultimus infra carinam gracillima paulo convexus, concentrice striatus; apertura parva, irregulariter lunata, vix obliqua; peristoma tenue, margine columellari valde incrassato subreflexo, perpendiculari cum basali angulum levem formante.

Diam. maj. 2.5 millim., *alt.* 2.25.

Hab. Gomanton, N.E. Borneo, and Palawan.

The concentric striae on the base are visible under a simple lens, but the spiral sculpture on the upper surface is discernible only under a microscope.

35. *SITALA BARITENSIS*, Smith.

Sitala baritensis, Smith, Journ. Linn. Soc., Zool. 1893, vol. xxiv. p. 343, pl. xxv. fig. 3.

Hab. Barit Mountain, N. Borneo, and Palawan.

The genus *Sitala* has not previously been recorded from Palawan. The specimens from this island are precisely similar to the Bornean examples.

36. *SITALA AMUSSITATA*. (Plate III. fig. 13.)

Testa perforata, conica, saturate olivaceo-fusca, nitens; spira elata, convexe conoidea, ad apicem pallidior, obtusa; anfractus 6, convexi, lente accrescentes, striis minutis paucis spiralibus hic illic sculpti, ultimus ad peripheriam rotundatus, infra medium concentrice tenuissime striatus; apertura parva, lunata; perist. tenue, margine columellari leviter incrassato, pallido, reflexo; umbilicus angustissimus, pallidus.

Diam. maj. 4.25 millim., *min.* 4, *alt.* $3\frac{1}{2}$.

Hab. Busau, West Sarawak.

A rich olive-brown glossy species, with a high spire and convex whorls.

37. *SITALA INÆQUISCULPTA*. (Plate III. fig. 14.)

Testa conica, angustissime perforata, fusco-cornea, supra parum nitida, infra polita; spira elata, conoidea, ad apicem paulo obtusa; anfractus 6, convexi, lente accrescentes, sutura profunda sejuncti, liris tenuissimis spiralibus 4-5 et lineis incrementi obliquis arcuatis elevatis cancellati, ultimus liris spiralibus sex (infima ad peripheriam sita) cinctus, infra medium concentrice tenuissime striatus, lineis incrementi levibus sculptus; apertura parva, sublunata; peristoma tenue, margine columellari paulum incrassato, pallide livido.

Diam. maj. $3\frac{1}{2}$ millim., *min.* $3\frac{1}{4}$, *alt.* $3\frac{2}{3}$.

Hab. Mount Rabong, West Sarawak.

The upper surface being cancellated and the lower smooth and glossy, this species is readily distinguishable from the other Bornean species of the genus *Sitala*.

The oblique curved lines of growth are elevated, but closer together than the spiral threads.

38. *SITALA INFANTILIS*. (Plate III. fig. 15.)

Testa minuta, conico-subglobosa, angustissime perforata, cornea, pellucida, polita; spira conoidea, ad apicem obtusa; anfractus 5, convexiusculi, lente accrescentes, infra suturam anguste marginati, leves, ultimus depresso globosus; apertura oblique lunata;

peristoma tenue, margine columellari superne paulo incrassato, anguste dilatato et reflexo.

Diam. 3 millim., *alt.* $2\frac{1}{2}$.

Hab. Palawan.

A very small, obtusely conical shell, with a very minute umbilical perforation, with scarcely any trace of sculpture.

39. *HELIX (CHLORITIS) TOMENTOSA*, Pfeiffer.

Helix tomentosa, Pfr. Mon. Hel. vol. iv. p. 271; Reeve, Con. Icon. f. 1403.

Var. *major*, Pfr. op. cit. vol. v. p. 353.

Banded var., Godwin-Austen, Proc. Zool. Soc. 1891, p. 42.

Var. = *H. (Fruticicola) everetti*, H. Adams, Proc. Zool. Soc. 1873, p. 207, pl. xxiii. fig. 11.

Hab. Sarawak and Labuan (*Pfr., Issel, Martens*); Karamon Island for banded var. (*G.-A.*); Busan for var. *everetti* (*Everett*); Banguay Island for var. *major* (*Everett*).

H. everetti differs only from the typical form of this species in having a supra-peripheral reddish zone. It appears to have been omitted by Kobelt, Issel, Godwin-Austen, and von Martens in their lists of Bornean Pulmonata.

Specimens of the var. *major* in Cuning's collection and a specimen from Banguay Island also have the colour-band just above the middle of the body-whorl.

40. *HELIX (CHLORITIS) KINA-BALUENSIS*, Kobelt. (Plate III. fig. 16.)

Helix (Chloritis?) kinibalensis, Kobelt, in Martini u. Chemnitz, Conch.-Cab. ed. 2, p. 706, pl. cci. figs. 5, 6.

Testa anguste umbilicata, depressa, subglobosa, dilute rufescens, supra peripheriam pallidam lineâ rufâ cincta; spira breviter conoidalis, ad apicem obtusa; anfractus 5, convexi, sutura subprofunda sejuncti, oblique striati, ultimus in medio obsolete angulatus, antice paulo descendens; apertura obliqua, late lunata, intus lilacea; peristoma albidum, tenue, anguste expansum, margine columellari reflexo.

Diam. maj. 25 millim., *min.* 21, *alt.* 17.

Hab. Kina Balu, British North Borneo.

In colour this species resembles the variety of *H. tomentosa* which has a red peripheral line. It is, however, larger, has a more elevated spire, the body-whorl has a tendency to subangulation, and the peristome is more regularly curved at the base.

41. *HELIX (CHLORITIS) EUPHROSYNE*. (Plate III. fig. 17.)

Testa late umbilicata, suborbicularis, depresso conica, tenuis, dilute fuscescens, prope sed supra peripheriam zona rufo-fusca cincta, epidermide plus minus breviter pilosa haud nitida induta; spira brevis, conoidea, ad apicem mediocriter obtusa; anfractus 5, convexiusculi, subceleriter accrescentes, lineis incrementi tenuibus striati, undique minute granulati, ultimus in medio obtuse

angulatus, antice paulo descendens; apertura late et oblique lunata, intus livido-fuscescens; peristoma tenue, pallide lilaceum, undique expansum, marginibus remotis, callo tenuissimo nitente junctis.

Diam. maj. 30 millim., *min.* 24, *alt.* 17.

Hab. Panalingoan, south-west of Palawan.

Much larger than *H. tomentosa*, more widely umbilicated and of a different form.

42. *HELIX* (*DORCASIA*) *INCAUTA*. (Plate III. fig. 18.)

Testa subglobosa, tenuis, anguste umbilicata, cornea vel pallide rubescens, epidermide tenui olivacea induta, incrementi lineis striata; spira brevis, conoidea, ad apicem subacuta; anfractus 6, leviter convexiusculi, ultimus ad peripheriam obsolete angulatus, angulo linea subpellucida picto, antice haud descendens; apertura late lunata, obliqua; peristoma subincrassatum, lilaceum, margine dextro vix reflexo, columellari dilatato et reflexo.

Diam. maj. 16 millim., *min.* 14, *alt.* 14; *apertura* 8 longa, 7.5 lata.

Hab. Sarawak (Bartlett).

A single specimen was presented to the British Museum by Mr. E. Bartlett in 1893. It somewhat resembles *H. fodiens*, Pfeiffer, but is more finely striated and has a more pointed spire. In addition to the fine lines of growth, faint traces of spiral striæ are also observable.

43. *HELIX* (*PAPUINA*?) *RUFOFILOSA*, Bock.

Helix (*Geotrochus*) *rufofilosa*, Bock, Proc. Zool. Soc. 1881, p. 630, pl. lv. fig. 4.

Helix (*Satsuma*) *rufofilosa*, Pilsbry, Man. Conch. ser. 2, vol. vii. p. 84, pl. iii. fig. 55.

Hab. Meri, Sarawak (*C. Hose*); Paio, Sumatra (*Bock*).

The single example collected by Mr. Hose is exactly similar to the types of this species presented to the Museum by Mr. Bock. Is it probable that this species occurs both in Borneo and Sumatra? I am rather inclined to think that Mr. Bock has made a mistake with regard to his locality. This might easily have occurred, as he collected in both islands.

44. *HELIX* (*PLECTOTROPIS*) *WINTERIANA*, Pfeiffer, var. β .

Hab. Busau, West Sarawak.

The specimens from this locality agree with Pfeiffer's var. β founded on Philippine examples. They are of the same small size, have a more pronounced keel than typical Javan specimens, and the under surface exhibits more distinct concentric striation than the typical form. These striæ are even more apparent in the shells from Guimarães. Both Martens¹ and Moellendorff² question

¹ Reise in Ost-Asien, ii. p. 265.

² Jahrbuch deutsch. mal. Gesell. 1887, p. 270.

the identity of this variety with the present species, but until we have more conclusive evidence to the contrary it seems to me advisable to consider it as such.

45. *AMPHIDROMUS PERVERSUS*, var. (Plate III. fig. 19.)

Hab. Sadong, West Sarawak.

The two dextral specimens belong to the variety named *Bulinus atricallosus* by Gould, which was founded upon specimens collected in Tavoy, Burmah.

B. eques, Pfeiffer, also belongs to this variety. The types appear to have been bleached, either naturally or artificially.

Neither of the Sadong examples exhibit any periodic oblique black stripes.

46. *AMPHIDROMUS ROSEI*. (Plate III. fig. 20.)

Testa parva, rimata, sinistrorsa, elongata, conica, sub epidermide tenuissima pallide flava, linea angusta rufo-purpurea circa anf. ultimi medium et supra suturam cincta, versus apicem fusco-maculata; anfractus 7, convexiusculi, lineis incrementi tenuissimis et obliquis striati, lente regulariter crescentes, ultimus brevis, circa rimam angustam nigro tinctus; apertura inverse auriformis, pallide flavescens, linea rufo-purpurea mediana picta, longit. totius $\frac{1}{3}$ paulo superans; peristoma album, breviter expansum et reflexum, margine columellari incrassato breviter dilatato.

Longit. 31 millim., *diam.* 14; *apertura* 11 longa, *intus* 7 lata.

Hab. Meri, Sarawak (*C. Hose*).

A small species, rather like *A. suspectus*, Martens, from Timor and Sumbawa. It is differently coloured, the increase of the whorls is slower, and the body-whorl and aperture are smaller. The apex is not black, and the fourth and fifth volutions exhibit some pale brown spots or stripes. Only a single specimen examined.

47. *CYATHOPOMA EVERETTI*. (Plate III. figs. 21, 22.)

Testa minuta, aperte et perspective umbilicata, breviter conoidea, cornea; anfractus $4\frac{1}{2}$, primi duo leves, convexi, magni, nucleum obtusum formantes, penultimus tricarinatus, carina mediana aliis magis conspicua, ultimus circa medium tricarinatus, circa umbilicum carina tenui prominente et intus carinis duobus minoribus instructus, inter carinas microscopice reticulatus; apertura subtriangularis, inferne acuminata, effusa; peristoma continuum, margine externo ad carinas triangulato, intus paulo incrassato, columellari arcuato, tenuiore.

Diam. maj. 2 millim., *alt* 2.

Hab. Rumbang, Sarawak.

A minute species, well characterized by the strong carinæ, the large apex, and triangular aperture.

48. *PTEROCYCLOS LATILABRUM*. (Plate III. figs. 23-25.)

Testa P. tenuilabiato similis, sed spira minus depressa, umbilico profundiore, paulum contractiore, superficie haud corrugata, labro latius expanso, operculo nucleum versus arctius convoluto.

Hab. Gomanton Hill, N. Borneo.

The very broad, thin, light brown or lilac-brown lip is in itself sufficient to distinguish this species. Most of the specimens are of a pale yellowish-olive tint, varied above with radiating jagged and zigzag red lines. Others, however, are of a deeper reddish-brown colour. The epidermis is smoother and more silky than that of *P. tenuilabiatus*, and the peculiar wrinkling of the surface of that species is entirely absent in the present form.

ALYCEUS.

Ten species of this genus are now known from Borneo, namely—*globosus*, H. Ad., *galbanus*, Godwin-Austen, *hosei*, G.-A., *everetti*, G.-A., *specus*, G.-A., *spiracellum*, Adams & Reeve, *broti*, Aldrich, *dohrni*, Boettger (= *hochstetteri*, Martens non Pfeiffer), *rimatus*, Bttr., and *fultoni*, Moellendorff.

Of these, *A. everetti* and *A. broti* may be synonymous¹; and *A. fultoni* has not yet been described, but the diagnosis (given on p. 117) has been kindly furnished by Dr. von Moellendorff.

49. *ALYCEUS GLOBOSUS*, H. Adams.

Alyceus globosus, H. Ad. Proc. Zool. Soc. 1870, p. 794; Godwin-Austen, op. cit. 1889, p. 346, pl. xxxvii. figs. 3, 3 a.

Hab. Busau and Bau, Sarawak (*A. Everett*).

Var. *MULUANA*. Like the typical form, but having the peristome less produced into a tongue-like projection over the umbilicus.

Hab. Mulu Mountain (*A. Everett*).

Var. *RABONGENSIS*. A trifle larger and more globose than type, pale straw-colour or reddish; peristome as in var. *muluana*. Diam. maj. $5\frac{2}{3}$ millim., alt. $5\frac{1}{2}$.

Hab. Mount Rabong, Sarawak (*A. Everett*).

Var. *KINA-BALUANA*. Not quite so globose as type; spire taller, aperture smaller; peristome with even less production over the umbilicus than in the two preceding varieties: colour same as var. *rabongensis*.

Hab. Kina Balu, N. Borneo (*A. Everett*).

Var. *PYGMAEA*. Like var. *muluana* in miniature, but more coarsely and distantly lamellated, and with the peristome even less bent back over umbilicus. Diam. maj. $3\frac{1}{2}$ millim., alt. $3\frac{1}{3}$.

Hab. Mulu Mountain.

¹ Since this was written, specimens of *A. everetti*, sent by Mr. Fulton, have been compared by Mr. Aldrich with his *A. broti*, and he has written, saying "they are the same thing." The diam. 7 mm. was a mistake, and should be "about $4\frac{1}{2}$ mm."

Although the differences between the extreme forms of this species are considerable, still there is such a general resemblance throughout the series, that it seems advisable to consider the various forms as local races of one and the same species rather than to describe them as distinct. The variation in the tongue-like reflection of the peristome over the umbilicus is one of degree, passing from the typical form, where it is obvious, to the var. *pygmæa*, where it is almost imperceptible.

50. *ALYCÆUS HOSEI*, Godwin-Austen.

Alycæus hosei, G.-A. Proc. Zool. Soc. 1889, p. 347, pl. xxxvii. f. 2.

Hab. Busau and Rumbang Hills, Sarawak (Everett).

In the description of this species the apex of the spire is said to be "pointed." In both the figure, however, and the shells also, it certainly is blunt. It is distinguished from *A. dolrni* thus: "apex distincte obtusior; tubulus suturalis aperturæ magis approximatus; *apertura subverticalis*, non diagonalis; peristoma utrinque distincte auriculatum, margine columellari cum basali angulum efficiente perdistinctum etc." (Dr. O. Boettger *in litt.*).

51. *ALYCÆUS (ORTHALYCÆUS) CONGENER.* (Plate III. fig. 26.)

Testa A. hosei similis, sed minor, spira elatiore, graciliore, anfractu ultimo minus gibboso, peristomate expanso, duplice, margine columellari reflexo, ad umbilicum sinuato, haud oblique rectilineare.

Diam. maj. $5\frac{1}{3}$ millim., *alt.* 6.

Hab. Mulu and Barit Mountains, Sarawak.

In colour and general appearance this species looks very like *A. hosei*. It differs, however, in the above particulars. It also, in some specimens, exhibits traces of spiral striæ. In *hosei* the inner peristome is somewhat porrected, in this form it is more reflexed. The sinuation at the umbilicus is very peculiar.

52. *ALYCÆUS (ORTHALYCÆUS) SADONGENSIS.* (Plate III. fig. 27.)

Testa A. fultoni similis, sed paulo minor, grisea, umbilico latiore, anfractibus quinque, oblique costulato-striatis et spiraliter tenuissime striatis, ultimo minus gibboso, peristomate expanso, tenui, haud duplice.

Diam. maj. $5\frac{1}{3}$ millim., *alt.* $5\frac{1}{3}$.

Hab. Sadong, Sarawak (Everett).

Although not mentioned by Dr. Moellendorff in the following description, excessively minute spiral striæ exist in *A. fultoni*; they are visible only under the microscope, and are less observable than in the present species. The spire of the latter is slightly less elevated and the whorls more rounded than in *A. fultoni*.

53. *ALYCÆUS (ORTHALYCÆUS) FULTONI*, Mlldff. (Plate III. fig. 28.)

"*T. perforata, elate turbinata, sat tenuis, subpellucida, confertim costulato-striata, læte citrina; spira valde elevata, subregulariter*

conica, apice glabrato, acutulo. Anfractus 6, perconvexi, sutura valde profunda disjuncti, ultimus medio valde inflatus, gibber, 4-5 mm. pone aperturam profunde constrictus, tum paululum ascendens, ad aperturam campanulatus, vix descendens. Apertura sat obliqua, subcircularis, peristoma duplex, externum late expansum, haud reflexum, ad insertionem paululum dilatatum, internum subporrectum.

"Diam. maj. 7, alt. 6.75 mm.

"*Hab.* prope Gomanton insulæ Borneo.

"This form was sent to me as *A. hosei*, G.-A., var., but it is decidedly different from that species, which has a more elevated spire, the last whorl much less tumid, the outer peristome much broader and almost auriculated at the insertion, the columella deeply sinuate, paler colour, etc. In fact the nearest relation of the new species is none of the Bornean *Alycei*, but *A. jagori*, v. Mart., of Java. It differs from the latter by greater size, half to one whorl more, the deeper constriction, the last whorl hardly deflected and therefore the less oblique aperture." (*Moellendorff*.)

54. *OPISTHOSTOMA OTOSTOMA*, Boettger.¹ (Plate IV. fig. 19.)

Hab. Busau (*Everett*); Brunei (*Boettger*).

55. *OPISTHOSTOMA COOKEI*, Smith. (Plate IV. fig. 20.)

Hab. Sarawak.

56. *OPISTHOSTOMA DEPAUPERATUM*, Smith. (Plate IV. fig. 21.)

Hab. Barit Mountain.

57. *OPISTHOSTOMA AUSTENI*, Smith. (Plate IV. fig. 22.)

Hab. Rumbang, Sarawak.

58. *OPISTHOSTOMA PUMILIO*, Smith. (Plate IV. fig. 23.)

Hab. Rumbang.

59. *CYCLOPHORUS KINA-BALUENSIS*. (Plate IV. fig. 1.)

Testa aperte umbilicata, suborbicularis vel depresso conica, in medio carinata, rufa, lineis angustis pallidis sutura radiantibus picta, epidermide tenui olivacea induta; anfractus 4½, convexiusculi, celeriter crescentes, lineis incrementi tenuibus striisque spiralibus conspicuis sculpti, ultimus ad peripheriam primo acute carinatus (carina versus aperturam minus acuta), infra convexiusculus, lineis concentricis paucis nigro-rufis pictus; apertura obliqua, sordide albida; peristoma incrassatum, pallidum vel rufum, margine superiore vix expanso, columellari leviter reflexo.

Diam. maj. 45, min. 33, alt. 27 millim.; apertura intus 16 alta, 19 lata.

Hab. Kina Balu, N. Borneo.

¹ For reference to this species and descriptions of the four following, see *Ann. & Mag. Nat. Hist.* 1894, vol. xiv. pp. 271-273.

Only two specimens of this species were collected. It is about the same size as *C. borneensis*, but differs from that species in colour, in the much stronger spiral striæ, and more rapidly enlarged whorls. In one example the extreme edge of the peristome, which is reddish, is quite sharp, but it is soon thickened on the outside by a conspicuous ridge. In the second specimen the lip is dirty whitish and rather more expanded.

60. *CYCLOPHORUS COCHRANEI*, Godwin-Austen. (Plate IV. fig. 2.)

Cyclophorus cochranei, G.-A., Proc. Zool. Soc. 1889, p. 334.

Hab. Meri, Sarawak (*C. Hose*); Busau and Niah (*A. Everett*).

This species has the body-whorl on the left side above the periphery more or less flattened, and has rather a humpy or shouldered appearance near the suture. This species, *C. talboti*, and *C. borneensis* probably pass one into the other, although the representative forms are recognizable enough.

Two of the specimens from Meri are of a pale pinkish-brown colour, with a darker broad infra-peripheral zone. The third example is entirely white beneath an olive epidermis. The latter form closely resembles the variety *ochracea*.

61. *LEPTOPOMA GEOTROCHIFORME*. (Plate IV. fig. 3.)

Testa fere obtecte perforata, trochoidea, ad peripheriam acute carinata, subtus planiuscula, alba; spira conica, acuta; anfractus 6, celeriter crescentes, leviter convexi, spiraliter tenuiter striati, lineisque incrementi obliquis, flexuosis, tenuissimis sculpti, ultimus supra et infra carinam concave compressus, antice haud descendens; apertura subcircularis; peristoma duplex, marginc externo tenui expanso, ad angulum acuminato, latiore supra quam infra, interno continuo, paulo incrassato.

Diam. maj. 22 millim., *min.* 17, *alt.* 20; *apertura intus* 9 *longa*, 9½ *lata*.

Hab. Mount Rabong, West Sarawak.

This species has a considerable resemblance to *L. undatum*, Metcalfe, and *L. niahense*, Godwin-Austen¹.

It is at once distinguished from the latter by the absence of the constriction behind the labrum, the double peristome, the almost concealed umbilicus, the more convex whorls, and slightly finer sculpture. *L. undatum* also has the body-whorl constricted behind the lip, but the peripheral keel becomes obsolete a little from it, so that there is hardly any acumination on the right of the aperture as in the present species and *L. niahense*. *L. undatum* is more openly umbilicated and has not a double peristome.

62. *LEPTOPOMA SKERTCHLYI*. (Plate IV. fig. 4.)

Testa L. undato similis, sed minor, carina peripherali usque ad labrum continua, anfractu ultimo pone aperturam haud constricto,

¹ Erroneously described as a *Helix* of the section *Geotrochus* (Proc. Zool. Soc. 1891, p. 44).

lineis incrementi obliquis supra et infra validis, pliciformibus, umbilico mediocri ut in L. undato; apertura oblique ovata; perist. duplice, margine externo late expanso, acuto, haud reflexo, interno continuo, leviter porrecto; anfractibus superioribus planiusculis, liris paucis spiralibus tenuibus cinctis.

Longit. $16\frac{1}{2}$ millim., *diam. maj.* $17\frac{1}{2}$, *min.* $13\frac{1}{2}$; *apertura intus* 6 longa, 7 lata.

Hab. Summit of Mount Ambun, British North Borneo, at an elevation of 3500 feet.

This species was collected by Mr. S. B. J. Skertchly, who observes on a ticket accompanying the two specimens, kindly presented to the British Museum by Mr. J. J. Walker, "animal emerald-green, so the shell looked green with white porcelain bands."

Its small size and strong sculpture distinguish this species from its allies, *L. undatum*, *L. mahense*, and *L. geotrochiforme*.

63. LAGOCHILUS BANGUEYENSIS. (Plate IV. fig. 5.)

Testa depresso turbinata, anguste umbilicata, tenuis, epidermide dilute olivacea, setosa induta; anfractus 6, celeriter accrescentes, convexi, spiraliter lirati, superiores saturate rufescentes, cateri strigis rufis radiantibus ornati, ultimus inferne haud strigatus, infra peripheriam zona angusta rufa pictus, supra medium liris circa 8-9 instructus, infra lineis impressis circa 6 remotis et subpunctatis sculptus; apertura fere circularis, mediocriter magna; peristoma duplex, tenue, margine externo vix expanso, interno continuo, pallido, leviter incrassato, ad suturam minute sinuato.

Diam. maj. 13 millim., *min.* 10, *alt.* 11; *apertura* 6 lata.

Hab. Banguey Island, North Borneo.

This species is clothed with a very hairy epidermis; the hairs are short, dark brown, situated upon the spiral liræ and the impressed lines on the base of the body-whorl, and at the same time they form oblique series in the direction of the lines of growth. The epidermis is easily cleaned off, the shell then having a very different look. The red radiating markings are curved and somewhat wavy, but do not extend beyond the middle of the body-whorl.

64. LAGOCHILUS RABONGENSIS. (Plate IV. fig. 6.)

Testa turbinata, umbilicata, sub epidermide tenui flavo et rufo oblique strigata, spiraliter lirata; anfractus 5-6, convexi, liris tenuibus spiralibus (in anfr. penult. quatuor) cincti, ultimus liris circiter 8-10 ornatus, antice vix descendens; apertura rotundata, mediocris; peristoma duplex, margine externo tenui plane reflexo, intus leviter incrassato, dilute lilaceo, continuo, ad suturam minute sinuato.

Diam. maj. 9 millim., *min.* $7\frac{1}{3}$, *alt.* 8; *apertura intus* $3\frac{1}{2}$ lata.

Var. *Testa minor, omnino lutescens vel strigis rufis radiantibus ornata.* *Diam. maj.* 7 millim., *min.* 6, *alt.* 7.

Hab. Mount Rabong, West Sarawak (A. Everett).

The typical form of this species is a little larger than *L. triliratus*, Pfr. It differs also in the greater number of spiral liræ and the stronger and more widely reflected lip. The variety is conspicuously smaller than the type and has a paler appearance. One of the three specimens examined is of a uniform pale olivaceous tint, the two others having a few more or less distant radiating stripes or spots.

L. bellulus, Martens, has four liræ upon the penultimate whorl, but about 1.4 on the last, and the red stripes are flexuous and the umbilicus broader.

65. *LAGOCHILUS KINA-BALUENSIS*. (Plate IV. fig. 7.)

Testa subaperte umbilicata, depresso turbinata, lutescens, rufo-nigro radiatim et undulatim strigata, spiraliter tenuissime striata, liris tenuibus (in anfr. ult. duo, ultimo quatuor) cincta, epidermide setosa induta; anfr. 6, convexi, superiores tres saturate rufescentes, sequentes duo in medio carina vel lira cincti, inferne ad suturam lira secunda ornati, ultimus carina vel lira suprema paulo supra medium sita, infima circa medium basis, antice vix descendens: peristoma recte reflexum, margine externo tenue, lutescente, interno continuo, leviter incrassato, subulilareo, ad suturam minute sinuato.

Diam. maj. 9 millim., min. 7, alt. 7; apertura intus 3½ lata.

Hab. Kina Balu, 3000–4000 feet (*A. Everett*).

Very like *L. inornatus* in form, but differing in the number of the spiral liræ, the spiral striae, and colour. The short brown hairs of the epidermis arise from the spiral liræ.

66. *LAGOCHILUS CONICUS*. (Plate IV. fig. 8.)

Testa anguste perforata, conica, lutescens, rufo radiatim strigata, epidermide tenui setosa induta, spiraliter tenuissime lirata; anfractus 6, convexi, regulariter, haud celeriter accrescentes, ultimus antice vix descendens; peristoma tenue, duplex, margine externo angustissime expanso, nigrescente, interno leviter incrassato, pallide livido, continuo, ad suturam minute sinuato.

Diam. maj. 8 millim., min. 7, alt. 8½; apertura intus 3½ lata.

Hab. Kina Balu, 3000–4000 feet (*A. Everett*).

The spiral liræ are rather feeble, four on the penultimate, and none below the periphery of the last.

67. *LAGOCHILUS BALABACENSIS*. (Plate IV. fig. 9.)

Testa L. trilirato similis, sed anfr. ultimo in umbilico liris tribus ornato, epidermide decidua lutosa induta.

Diam. maj. 8 millim., min. 6⅔, alt. 7; apertura 4 lata.

Hab. Island of Balabac, between Palawan and Borneo (*A. Everett*).

This species is of the same size and colour as *L. triliratus*, Pfr., from Labuan, and the latter has four liræ encircling the body-whorl, of which the lowermost is around the middle of the base. The present species has six liræ, the upper three situated as in

L. triliratus. The fourth lira surrounds the umbilicus, and the two others are within it. The epidermis seems somewhat different, and the peristome is a trifle less thickened than in the Labuan species. These appear to be small differences; still, they will probably prove to be constant in specimens from the two localities.

68. *LAGOCHILUS MUNDYANUS*, Godwin-Austen.

Lagochilus mundyanus, G.-A. Proc. Zool. Soc. 1889, p. 338, pl. xxxix. figs. 6-6 b.

Lagochilus altus, Smith, Journ. Linn. Soc., Zool. vol. xxiv. p. 345, pl. xxv. fig. 9.

Hab. Busau Hills.

I regret having overlooked Godwin-Austen's *L. mundyanus* when describing *L. altus*. They are undoubtedly identical. A specimen recently received differs from the typical form in being of a uniform dark purplish-brown colour.

69. *LAGOCHILUS QUADRICINCTUS*. (Plate IV. fig. 10.)

Testa parva, anguste umbilicata, turbinata, tenuis, pellucido-albida, ad apicem fuscescens; anfractus $5\frac{1}{2}$, *supremi* 2-3 *convevi, læves, penultimus conveviusculus, bicarinatus, ultimus mediocriter convexus, carinis quatuor cinctus; apertura fere circularis; peristoma subduplex, tenue, late expansum et recurvum, margine interno columellari ad suturam minute inciso.*

Diam. maj. $8\frac{1}{4}$ millim., *min.* 6, *alt.* 8; *apertura intus* $3\frac{1}{3}$ *longa et lata.*

Hab. Mulu, N. Sarawak.

This species is somewhat like *L. baritensis*, Smith, but is much smaller, without colour-markings, has larger nuclear whorls, and is differently keeled. The peristome also is more widely expanded and not so distinctly double.

70. *DIPLOMMATINA RUBICUNDA* (Martens).

Pavillus rubicundus, Martens, Preuss. Exped. Ost-Asien, Zool. vol. ii. p. 164, pl. 4. fig. 16.

Diplommatina rubra, Godwin-Austen, Proc. Zool. Soc. 1889, p. 349, pl. xxxviii. fig. 7.

Diplommatina rubicunda, Smith, Ann. Mag. N. H. 1894, vol. xiii. p. 463.

Hab. Bengkajang and Singkawang, W. Borneo (*Martens*); Niah Hills (*Godwin-Austen*); Mt. Rabong, West Sarawak, Kina Balu, and Gomanton, North Borneo, also Palawan (*Everett, in present coll.*); Natuna Islands (*Smith*).

The intensity of the reddish colour is variable, and the outer peristome is more remote from the inner in some specimens (*e. g.* those from the Natuna Islands) than in others.

71. *DIPLOMMATINA RECTA*. (Plate IV. fig. 11.)

Testa dextrorsa, ovata, superne acuminata, cornea; anfractus 6, *perconvexi, lamellis tenuissimis obliquis numerosis ornati,*

ultimus penultimum subæquans; apertura irregulariter rotundata, verticalis; peristoma incrassatum, expansum, duplex, marginibus conniventibus, callo tenui junctis, columellari intus dente acuto munito.

Longit. 3 millim., *diam* $1\frac{1}{2}$.

Hab. Kina Balu.

Var. Testa minor, paulo angustior, pallide rufescens.

Hab. Balabac.

The above differences seem hardly sufficient to distinguish this variety from the typical form.

72. DIPLOMMATINA BALABACENSIS. (Plate IV. fig. 12.)

Testa minima, elongata, ovato-fusiformis, sordide albida, dextrorsu, imperforata; anfractus 7-8, convexi, tenuiter lamellati, lamellis supra anfractum penult. confertioribus quam supra; anfr. ultimus penultimo minor, antice ascendens; apertura verticalis, rotundata; peristoma incrassatum, triplex, marginibus callo tenui junctis, columellari dente minuto intus munito.

Longit. 2 millim., *diam.* $\frac{3}{4}$.

Hab. Balabac.

This is smaller than any of the Bornean species. There is a marked difference in the proximity of the fine lamellæ, or threads, upon the penultimate whorl and that above it. The genus *Diplommatina* has not previously been recorded from this island.

73. DIPLOMMATINA BARITENSIS, Smith.

Diplommatina baritensis, Smith, Journ. Linn. Soc., Zool. vol. xxiv. p. 350, pl. xxv. fig. 22.

Hab. Kina Balu, Busau, Rumbang, and Banguay Island.

None of the specimens from these localities agree exactly with the type from Barit Mountain. In form they correspond very closely, but none are so distinctly and distantly lamellated. Those from Kina Balu, Busau, and Rumbang are of a dirty yellowish tint, becoming reddish towards the apex of the spire, and the peristomes are bright yellow. The specimens from Banguay Island appear almost smooth at first sight, the fine costulation being observable only under a powerful lens. They are pale and subpellucid like the type, and the peristome also is likewise whitish. Some of the yellow lips are rather more thickened than in the typical form.

In the figure the spire above the penultimate whorl is not long enough and too broad. Some specimens bear considerable resemblance to *D. concinna*, H. Adams, but the penultimate whorl is larger in proportion to the last.

74. DIPLOMMATINA CONCOLOR, Quadras & Moellendorff. (Plate IV. fig. 13.)

Diplommatina (Sinica) concolor, Q. & M. Nachrichtsbl. deutsch. mal. Gesell. 1893, p. 182.

Hab. Cagayan, Luzon (Q. & M.); Palawan (Everett).

The Palawan specimens have half a whorl less than those from Luzon, the spire above the penultimate volution appearing in consequence a trifle shorter. The sculpture, form of aperture, and columellar denticle are the same¹.

75. PUPINA HOSEI, Godwin-Austen.

Pupina hosei, G.-A. Proc. Zool. Soc. 1889, p. 351, pl. xxxix. figs. 1, 1 a.

Hab. Busau (*type*); Mulu Mountain and Mount Rabong, Sarawak; also Balabac and Palawan (*A. Everett*).

This species is rather variable in size, even among specimens from the same locality. Some examples are stouter than others, and one from the cave-earth, in a semi-fossilized condition, has an exceptionally tall spire. There is very little variation in the form of the aperture, the peristome, and sinuses.

76. CYCLOTUS PALAWANICUS. (Plate IV. fig. 14.)

Testa orbicularis, aperte umbilicata, dilute castanea, infra medium paulo pallidior, lineis incrementi tenuibus striata, subpolita; spira depressa, apice obtuso, prominulo; unfractus 5, convexi, celeriter accrescentes, sutura profunda sejuncti, ultimus antice leviter descendens; apertura mediocris; peristoma duplex, margine externo superne lato, tenui, haud reflexo, prope suturam concave dilatato, interno continuo, infra suturam leviter sinuato, umbilicum versus cum externo conjuncto et incrassato; operculum utrinque leviter concavum, ad marginem bicarinatum, inter carinas acutas excavatum, sordide albidum, ex anfractibus nonis oblique striatis constitutum.

Diam. maj. 21 millim., *min.* 15, *alt.* 10; *apertura intus* 7 longa et lata.

Var. PARVA. *Testa minor, concolor, vel supra plus minus maculata; peristoma angustius expansum.* *Diam. maj.* 15½ millim.

Hab. Maranggas, S.W. Palawan.

If very carefully examined, a very faint peripheral zone is traceable.

77. CYCLOTUS PUSILLUS (Sowerby).

Cyclostoma pusillum, Sowerby, Thes. Conch. vol. i. p. 94, pl. 23. figs. 5, 5*; Pfeiffer, Conch.-Cab. ed. 2, p. 59, pl. 7. figs. 16, 17.

Cyclotus pusillus, Reeve, Con. Icon. fig. 39; Hidalgo, Journ. de Con. 1888, p. 57.

Hab. Luzon and Negros, Philippines (*Sowerby*); Marinduque and Cebu (*Hidalgo*); Palawan (*Everett*).

Two specimens from Palawan, 9 millim. in diameter, are peculiar in having the last half of the body-whorl disconnected with the penultimate.

¹ In my Report upon the Land-Shells of the Natuna Islands, I named a species belonging to this genus *D. strubelli*. I regret to find that that name had already been used, and propose therefore to change it to *D. brunonis*.

78. *CYCLOTUS LINITUS*, Godwin-Austen.

Cyclotus linitus, Godwin-Austen, Proc. Zool. Soc. 1889, p. 345, pl. xxxvi. fig. 3.

Hab. Mount Rabong, West Sarawak.

Some of the specimens from this locality are larger than the types from Busau, being 10 millim. in their greater diameter. With the exception of the apex, they are entirely coated with the thick earthy deposit, which is possibly to some extent protective. The body-whorl descends in front, and is slightly detached from the penultimate at the aperture.

79. *HELICINA USUKANENSIS*, Godwin-Austen.

Helicina usukanensis, G.-A. Proc. Zool. Soc. 1889, p. 352, pl. xxxix. fig. 7.

Hab. Mengalun Island, Usukan Island, Banguay Island, Mantagak Island, and Palawan; also Sibutu and Bilatan, Sulu Islands (*A. Everett*).

The specimens from Sibutu and Bilatan were at one time supposed to belong to *H. contermina*, Kobelt¹. That species, judging from the description, appears to be somewhat more globose, and the keel is said to be thread-like ("carina filiformi"). Perhaps a comparison of specimens, however, may yet show that they really are the same as that species. I have no hesitation in placing all the specimens from the above localities under *H. usukanensis*, although there are slight differences in size and the colour is variable. It may be uniformly yellowish or pinkish red, but the keel is always whitish, and a narrow reddish zone beneath the carina is more or less visible in most specimens.

80. *GEORISSA EVERETTI*. (Plate IV. fig. 15.)

Testa turbinata, imperforata, rufescens, lineis obliquis minute decussata; anfractus 4, perconvexi, primus laevis, globosus, ultimus antice subdescendens; apertura rotunde ovata; peristoma tenue, marginibus callo tenui junctis, columellari pallido, reflexo. Longit. 2 millim., diam. 1½; apertura 1 longa, ¾ lata.

Hab. Rumbang, W. Sarawak.

Only a single specimen of this pretty species was collected by Mr. Everett. It is distinguished from all the other Bornean species by the decussation of the surface, formed by the minute curved lines of growth being crossed by others obliquely sloping in the opposite direction. Under a powerful lens the points of intersection appear somewhat granulous.

81. *GEORISSA BANGUEYENSIS*. (Plate IV. fig. 16.)

Testa turbinata, rufescens, fere laevis; anfractus 4, perconvexi, sutura profunda sejuncti, lineis incrementi obliquis substriati, primus subglobosus; apertura oblique semicircularis; peristoma

¹ Ann. Mag. Nat. Hist. 1894, vol. xiii. p. 59, pl. iv. figs. 6, 6 a.

vix incrassatum, marginibus callo tenui junctis, columellari supra regionem umbilicalem fortiter reflexo, callum crassum formante.
Longit. $1\frac{2}{3}$ millim., *diam.* $1\frac{1}{3}$; *apertura* $\frac{2}{3}$ longa, $\frac{1}{2}$ lata.

Hab. Banguay Island.

The strong callus over the umbilical region is a characteristic feature. There is very little surface-sculpture observable, merely very faint lines of growth and a few minute spiral striæ on the body-whorl, visible only under the microscope.

82. *GEORISSA FLAVESCENS.* (Plate IV. fig. 17.)

Testa globose turbinata, flavescens, spiraliter striata; anfractus tres, primus lævis, globosus, secundus convexiusculus, superne subhumerosus, ultimus magnus, subglobosus; apertura semicircularis, obliqua, longit. totius $\frac{1}{2}$ adæquans; peristoma leviter incrassatum, marginibus callo tenui junctis, columellari oblique rectiusculo, reflexo, supra umbilicum callum crassiusculum formante.

Longit. $1\frac{2}{3}$ millim., *diam.* $1\frac{1}{2}$; *apertura* $1\frac{1}{4}$ longa, $\frac{3}{4}$ lata.

Hab. Gomanton, N.E. Borneo.

Although spirally sculptured somewhat similarly to *G. hosei*, this species differs in colour and the less angular penultimate whorl.

83. *GEORISSA BORNEENSIS.* (Plate IV. fig. 18.)

Testa imperforata, turbinata, rufescens; anfractus quatuor, convexi, sutura canaliculata sejuncti, oblique striati, primus globosus, lævis, ultimus antice paulo descendens, ad medium obtuse subangulatus; apertura parva; peristoma rufum, intus limbatum, marginibus callo tenui junctis, columellari obliquo, vix arcuato, reflexo.

Longit. $2\frac{1}{2}$ millim., *diam.* fere 2; *apertura* 1 longa, $\frac{2}{3}$ lata.

Hab. Gomanton, N.E. Borneo.

This species has no spiral sculpture, but exhibits merely fine striæ of growth. The outer lip is distinctly thickened within and of a bright red colour.

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